



Injuries due to foreign body aspirations in Georgia: A prevention perspective



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ABSTRACT

Background: Suffocation due to foreign bodies (FB) is a leading cause of death in children aged 0–3. No data from the former U.S.S.R. are available in the international scientific literature.

Methods: Consecutive patients admitted at the Iashvili Central Children Hospital in Tbilisi, Georgia from 1989 to 2011 were analyzed. Injuries in the upper airways due to foreign bodies' inhalation were collected and compared with the Susy Safe Registry and the pooled estimates of the meta-analysis.

Results: 2896 cases were collected. Distribution of injuries in children younger than 3 years was significantly higher than in the Susy Safe Registry and in the "High-Income" countries in the meta-analysis. Percentage of injuries due to organic objects (86%) was significantly higher than in published data.

Conclusions: Since Georgia is not showing any substantial difference, both in epidemiology and treatment of foreign bodies injuries, as compared to the other case series, translation of public health initiatives from other most advanced prevention experiences is possible and it is likely to be effective.

Level of evidence: Level V, Epidemiological case series.

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Abbreviations: FBf, oreign bodies; U.S., United States; U.S.S.R, Union of Soviet Socialist Republics; Clc, onfidence interval.

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Quality Control.

What is known

- Foreign bodies injuries in children are heterogeneous in geographical and cultural terms.
- Development of international guidelines to avoid injuries needs local accurate epidemiological data.

What is new

- For the first time, epidemiology of foreign bodies injuries in Georgia is made available to scientists.
- The overlapping of Georgian data with Europe suggest that a common prevention is possible.
- An integration of Georgian data in the Susy Safe registry will allow continuous monitoring and surveillance of injuries helping in promoting best practices.

1. Introduction

Foreign body (FB) injuries are a serious health problem in pediatric patients causing significant morbidity and mortality. FB injuries and adverse events are common among children, and are

well known and documented [1]. In recent years, they have raised public health concern [2] being recognized as a burden both for the cost they impose on of the injured children and their families' quality of life and for their socio-economic impact [3]. Conversely, from the health care perspective, consequences are very heterogeneous, varying from death to lower impact disturbs, like inflammation [4]. Often, however, complications arise, sometime requiring hospitalization. The clinical aspects of identification, removal and treatment of complications have already been widely approached in the literature.

The rapid management is, without doubt, one of the main requirement when facing such injuries. In terms of primary prevention, the knowledge of features like shape, dimension, consistency of the objects causing the injury, are fundamental in providing an evidence based education or legislation to avoid the injury or to lower the damage that might occur.

Although FB injuries are reported in case series worldwide, as pointed out in a recent review [5], no data coming from countries of the former U.S.S.R are available. To fill this gap, this paper presents the first case series ever published on the epidemiology of foreign bodies' injuries in Georgia, a former U.S.S.R country.

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